

What Is Claimed Is:

1. A three-dimensional image display device, comprising:
a display panel displaying at least one parallax image; and
a mask formed of transparent regions and convertible regions alternately aligned along a horizontal direction, and formed in front of the display panel.
2. The device according to claim 1, wherein the mask is formed of a liquid crystal display panel.
3. The device according to claim 2, wherein the liquid crystal display panel is formed of liquid crystal display segments forming the transparent regions and the convertible regions.
4. The device according to claim 1, wherein the transparent regions of the mask are not aligned along a perpendicular direction.
5. The device according to claim 4, wherein a left side of an upper transparent region is aligned with a right side of a lower transparent region adjacent thereto.
6. The device according to claim 4, wherein a right side of an upper transparent region is aligned with a left side of a lower transparent region adjacent thereto.

7. The device according to claim 1, wherein a size of the transparent regions of the mask is equal to or less than $1/3$ of a size of a pixel in the display panel.

8. The device according to claim 1, further comprising a controller converting a portion or all of the convertible regions into transparent regions depending upon a number of parallax images.

9. The device according to claim 8, wherein the controller converts all of the convertible regions into transparent regions, when the number of parallax images is 1 or 0.

10. The device according to claim 1, wherein the controller converts a portion of the convertible regions into transparent regions, when the number of parallax images is less than a predetermined number.

11. The device according to claim 1, wherein the controller controls a distance between the display panel and the mask depending upon a distance between a viewer and the mask.

12. A three-dimensional image display device, comprising:
a display panel simultaneously displaying a plurality of parallax images;
a mask provided in front of the display panel, and selectively having a portion of the mask become transparent; and
a controller determining transparent regions and opaque regions of the mask depending upon a number of the parallax images.

13. The device according to claim 12, wherein the controller controls a distance between the display panel and the mask depending upon a location of a viewer.

14. The device according to claim 12, wherein the controller increases a number of the transparent regions and a number of the opaque regions when the number of parallax images is small, and reduces the number of the transparent regions and the number of the opaque regions when the number of parallax images is large.

15. The device according to claim 12, wherein the controller reduces a size of the opaque regions when the number of parallax images is small, and increases the size of the opaque regions when the number of parallax images is large.

16. The device according to claim 12, wherein the controller determines the size of the opaque regions to be larger than that of the transparent regions.

17. The device according to claim 12, wherein the controller detects a portion of the parallax images having no parallax.

18. The device according to claim 12, wherein the controller determines a portion of the mask corresponding to the portion of the parallax images having no parallax to become transparent regions.

19. The device according to claim 12, wherein the controller alternately aligns the transparent regions and the opaque regions within the mask along a horizontal direction, and does not align the transparent regions along a vertical direction.